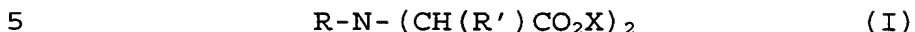


## CLAIMS

1. Use of at least one compound corresponding to formula (I) below:



in which:

- R represents a hydrogen atom or a group  
CH(CO<sub>2</sub>X) - (CH<sub>2</sub>)<sub>2</sub>CO<sub>2</sub>X, CH(CH<sub>3</sub>) - CO<sub>2</sub>X or (CH<sub>2</sub>)<sub>2</sub>-N(COR'') - CH<sub>2</sub>-  
10 CO<sub>2</sub>X;

- R'' represents a linear or branched alkyl group containing from 1 to 30 carbon atoms, or a cyclo-alkyl group containing from 3 to 30 carbon atoms;

- R' represents a group CH<sub>2</sub>CO<sub>2</sub>X when R  
15 represents a hydrogen atom, or R' represents a hydrogen atom when R is other than a hydrogen atom; and

- X represents a hydrogen atom or a monovalent or divalent cation derived from an alkali metal, from an alkaline-earth metal, from a transition metal or  
20 from an organic amine, or an ammonium cation.

as agents for complexing metal cations present in an oxidizing composition, comprising at least one oxidizing agent, for bleaching, dyeing or permanently reshaping keratin fibres.

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2. Use according to Claim 1, in which the monovalent or divalent cation is preferably chosen from the group consisting of monovalent alkali metal cations, divalent alkaline-earth metal cations,  
30 divalent transition metal cations and monovalent cations derived from organic amines or from ammonium.

3. Use according to Claim 1, in which the divalent cation is chosen from the group of alkaline-  
35 earth metal or transition metal cations.

4. Use according to any one of Claims 1 to 3, in which the oxidizing agent is an oxidizing agent chosen from the group consisting of hydrogen peroxide, alkali metal bromates and persalts.

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5. Use according to any one of Claims 1 to 4, in which the complexing agent is an agent chosen from the group consisting of methylglycinediacetic acid, N-lauroyl-N,N',N'-ethylenediaminetriacetic acid, iminodisuccinic acid and N,N-dicarboxymethyl-L-glutamic acid, and the corresponding salts thereof.

6. Use according to any one of the preceding claims, in which the oxidizing agent is aqueous hydrogen peroxide solution and the compound of formula (I) is methylglycinediacetic acid, optionally in the form of salts.

7. Use according to any one of Claims 1 to 6, in which the oxidizing agent is aqueous hydrogen peroxide solution and the compound of formula (I) is iminodisuccinic acid, optionally in the form of salts.

8. Use according to any one of the preceding claims, in which the composition also comprises one or more cationic or amphoteric conditioning polymers, in proportions of from 0.01% to 10% by weight and preferably from 0.05% to 5% by weight relative to the total weight of said composition.

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9. Use according to any one of the preceding claims, in which the composition also comprises one or more nonionic, anionic, cationic or amphoteric amphiphilic polymers, comprising a hydrophobic chain, in proportions of from 0.05% to 20%

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by weight and preferably from 0.1% to 10% by weight relative to the total weight of said composition.

10. Use according to any one of the preceding claims, in which the composition also comprises one or more surfactants, in proportions of from 0.01% to 40% by weight and preferably from 0.1% to 30% by weight relative to the total weight of said composition.

10

11. Use according to any one of the preceding claims, in which the composition also comprises one or more rheology modifiers other than the nonionic, anionic, cationic or amphoteric amphiphilic polymers, comprising a hydrophobic chain, in proportions of from 0.05% to 20% by weight and preferably from 0.1% to 10% by weight relative to the total weight of said composition.

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12. Use according to any one of the preceding claims, in which the composition also comprises one or more acidifying or basifying agents, in proportions of from 0.01% to 30% by weight relative to the total weight of said composition.

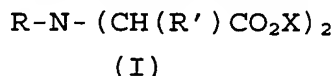
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13. Use according to any one of the preceding claims, in which the composition also comprises one or more solvents chosen from the group consisting of water and mixtures composed of water and of one or more cosmetically acceptable organic solvents, this or these solvent(s) representing from 0.5% to 20% by weight and preferably from 2% to 10% by weight relative to the total weight of said composition.

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14. Use according to any one of the preceding claims, in which the composition also comprises one or more adjuvants chosen from the group consisting of mineral or organic fillers, binders, lubricants, antifoams, silicones, dyes, matting agents, preserving agents and fragrances.

15. Oxidizing composition for dyeing, bleaching or permanently reshaping keratin fibres, comprising at least one oxidizing agent and at least one compound corresponding to formula (I) below:



in which:

- R represents a hydrogen atom or a group  $\text{CH(CO}_2\text{X)-(CH}_2\text{)}_2\text{CO}_2\text{X}$ ,  $\text{CH(CH}_3\text{)-CO}_2\text{X}$  or  $\text{(CH}_2\text{)}_2\text{-N(COR'')-CH}_2\text{-CO}_2\text{X}$ ;
  - R'' represents a linear or branched alkyl group containing from 1 to 30 carbon atoms, or a cycloalkyl group containing from 3 to 30 carbon atoms;
  - R' represents a group  $\text{CH}_2\text{CO}_2\text{X}$  when R represents a hydrogen atom, or R' represents a hydrogen atom when R is other than a hydrogen atom; and
  - X represents a hydrogen atom or a monovalent or divalent cation derived from an alkali metal, from an alkaline-earth metal, from a transition metal or from an organic amine, or an ammonium cation;
- with the proviso that, when the oxidizing agent is sodium perborate, the compound of formula (I) is other than methylglycinediacetic acid and iminodisuccinic acid.

16. Composition according to Claim 15, in which the monovalent cation is chosen from the group of alkali metal cations.

5 17. Composition according to Claim 15, in which the divalent cation is chosen from the group of alkaline-earth metal or transition metal cations.

10 18. Composition according to any one of Claims 15 to 17, in which the oxidizing agent is an oxidizing agent chosen from the group consisting of hydrogen peroxide, alkali metal bromates and persalts.

15 19. Composition according to Claim 18, in which the oxidizing agent is a persulphate.

20 20. Composition according to any one of Claims 15 to 19, in which the compound of formula (I) is a compound chosen from the group consisting of methylglycinediacetic acid, N-lauroyl-N,N',N'-ethylenediaminetriacetic acid, N,N-dicarboxymethyl-L-glutamic acid and iminodisuccinic acid, and salts thereof.

25 21. Composition according to any one of Claims 15 to 20, in which the oxidizing agent is aqueous hydrogen peroxide solution and the compound of formula (I) is methylglycinediacetic acid, optionally in the form of salts.

30 22. Composition according to any one of Claims 15 to 21, characterized in that it also comprises one or more constituents chosen from the group consisting of cationic or amphoteric conditioning polymers, nonionic, anionic, cationic or amphoteric

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amphiphilic polymers, comprising a hydrophobic chain, surfactants, rheology modifiers other than the abovementioned amphiphilic polymers, pH modifiers and solvents.

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23. Composition according to any one of Claims 15 to 22, characterized in that it also comprises one or more adjuvants chosen from the group consisting of mineral or organic fillers, binders, lubricants, antifoams, silicones, dyes, matting agents, preserving agents and fragrances.

24. Process for bleaching or permanently reshaping keratin fibres, successively comprising the steps consisting in:

15 a) applying to the keratin fibres an oxidizing composition as defined in Claims 15 to 23;

b) leaving the oxidizing composition to stand on the keratin fibres for a time that is sufficient to obtain the desired bleaching or permanent reshaping;

20 c) rinsing the keratin fibres to remove the oxidizing composition therefrom;

d) optionally washing the keratin fibres one or more times, rinsing them after each wash, and optionally drying them;

25 said process also comprising, before step a), in the case of a permanent reshaping, the steps consisting in:

i) applying a reducing composition to the keratin fibres;

30 ii) leaving the reducing composition to stand on the keratin fibres for a time that is sufficient to obtain the desired reshaping; and

iii) optionally rinsing the keratin fibres with water to remove the reducing composition therefrom.

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25. Process for dyeing keratin fibres, successively comprising the steps consisting in:

5 e) applying a dye composition to these fibres;

f) developing the colour of said composition by applying to the fibres an oxidizing composition according to any one of Claims 15 to 23;

10 g) leaving the oxidizing composition to stand on the keratin fibres for a time that is sufficient to obtain the desired coloration;

h) rinsing the keratin fibres with water to remove the dye composition and the oxidizing composition therefrom.

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26. Process for dyeing keratin fibres, successively comprising the steps consisting in:

20 i) applying to these fibres a composition obtained by extemporaneous mixing, before application, of a dye composition and of an oxidizing composition according to any one of Claims 15 to 23;

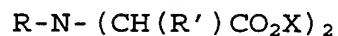
j) leaving the composition to stand on the keratin fibres for a time that is sufficient to obtain the desired coloration;

25 k) rinsing the keratin fibres with water to remove the composition therefrom.

27. Device or "kit" for dyeing keratin fibres, comprising at least two compositions A and B intended to be mixed together to obtain a ready-to-use dye composition, the composition A being the oxidizing composition and the composition B being a composition comprising at least one dye, said device being characterized in that the composition A contains at

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least one or more compounds corresponding to the general formula (I) below:



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(I)

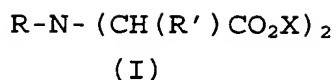
in which:

- R represents a hydrogen atom or a group  $\text{CH(CO}_2\text{X)-(CH}_2\text{)}_2\text{CO}_2\text{X}$ ,  $\text{CH(CH}_3\text{)-CO}_2\text{X}$  or  $\text{(CH}_2\text{)}_2\text{-N(COR'')-CH}_2\text{-CO}_2\text{X}$ ;
  - R'' represents a linear or branched alkyl group containing from 1 to 30 carbon atoms, or a cycloalkyl group containing from 3 to 30 carbon atoms;
  - R' represents a group  $\text{CH}_2\text{CO}_2\text{X}$  when R represents a hydrogen atom, or R' represents a hydrogen atom when R is other than a hydrogen atom; and
  - X represents a hydrogen atom or a monovalent or divalent cation derived from an alkali metal, from an alkaline-earth metal, from a transition metal or from an organic amine, or an ammonium cation;
- with the proviso that, when the oxidizing agent is sodium perborate, the compound of formula (I) is other than methylglycinediacetic acid and iminodisuccinic acid.

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28. Device or "kit" for bleaching keratin fibres, comprising at least two compositions C and D intended to be mixed together to obtain a ready-to-use oxidizing composition, said device being characterized in that at least one of the compositions C and D contains one or more oxidizing agents and at least one contains one or more compounds corresponding to the general formula (I) below:

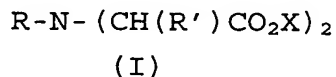
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in which:

- 5        -     R represents a hydrogen atom or a group  
 $\text{CH(CO}_2\text{X) - (CH}_2\text{)}_2\text{CO}_2\text{X}$ ,  $\text{CH(CH}_3\text{) - CO}_2\text{X}$  or  $\text{(CH}_2\text{)}_2\text{-N(COR'') - CH}_2\text{-CO}_2\text{X}$ ;
- R'' represents a linear or branched alkyl  
 group containing from 1 to 30 carbon atoms, or a cyclo-  
 10    alkyl group containing from 3 to 30 carbon atoms;
- R' represents a group  $\text{CH}_2\text{CO}_2\text{X}$  when R  
 represents a hydrogen atom, or R' represents a hydrogen  
 atom when R is other than a hydrogen atom; and
- X represents a hydrogen atom or a monovalent  
 15    or divalent cation derived from an alkali metal, from  
 an alkaline-earth metal, from a transition metal or  
 from an organic amine, or an ammonium cation;  
 with the proviso that, when the oxidizing agent is  
 sodium perborate, the compound of formula (I) is other  
 20    than methylglycinediacetic acid and iminodisuccinic  
 acid.

29. Device or "kit" for permanently  
 reshaping keratin fibres, comprising at least two  
 25    compositions E and F, composition E being an oxidizing  
 composition and composition F being a reducing  
 composition, said device being characterized in that  
 composition E contains one or more oxidizing agents and  
 at least one or more compounds corresponding to the  
 30    general formula (I) below:



in which:

- R represents a hydrogen atom or a group  $\text{CH}(\text{CO}_2\text{X}) - (\text{CH}_2)_2\text{CO}_2\text{X}$ ,  $\text{CH}(\text{CH}_3) - \text{CO}_2\text{X}$  or  $(\text{CH}_2)_2 - \text{N}(\text{COR}'') - \text{CH}_2 - \text{CO}_2\text{X}$ ;

5 - R'' represents a linear or branched alkyl group containing from 1 to 30 carbon atoms, or a cyclo-alkyl group containing from 3 to 30 carbon atoms;

- R' represents a group  $\text{CH}_2\text{CO}_2\text{X}$  when R represents a hydrogen atom, or R' represents a hydrogen atom when R is other than a hydrogen atom; and

10 - X represents a hydrogen atom or a monovalent or divalent cation derived from an alkali metal, from an alkaline-earth metal, from a transition metal or from an organic amine, or an ammonium cation; with the proviso that, when the oxidizing agent is  
15 sodium perborate, the compound of formula (I) is other than methylglycinediacetic acid and iminodisuccinic acid.

30. Use of a composition according to any  
20 one of Claims 15 to 23, or of a process according to one of Claims 24 to 26 or of a device according to Claim 27, Claim 28 or Claim 29, for dyeing, bleaching or permanently reshaping human keratin fibres and, more especially, the hair.

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